(19)

Europäisches Patentamt

European Patent Office

Office européen des brevets



(11) EP 0 724 017 A3

(12)

EUROPEAN PATENT APPLICATION

- (88) Date of publication A3: 17.09.1997 Bulletin 1997/38
- (43) Date of publication A2: 31.07.1996 Bulletin 1996/31
- (21) Application number: 96101228.3
- (22) Date of filing: 29.01.1996

(51) Int. Cl.⁶: **C12N 15/56**, C12P 13/08, C12P 13/14, C12N 1/19 // (C12N1/19, C12R1:13, 1:15)

- (84) Designated Contracting States: DE ES GB IT
- (30) Priority: 30.01.1995 JP 12361/95
- (71) Applicant: Ajinomoto Co., Ltd. Tokyo (JP)
- (72) Inventors:
 - Sugimoto, Masakazu, c/o Tech. & Eng. Lab. Kawasaki-shi, Kanagawa-ken (JP)
 - Otsuna, Selko, c/o Tech. & Eng. Lab. Kawasaki-shi, Kanagawa-ken (JP)
 - Nagase, Kazuo, c/o Cent. Res. Lab. Kawasaki-shi, Kanagawa-ken (JP)

- Tsuchiya, Makoto, c/o Cent. Res. Lab. Kawasaki-shi, Kanagawa-ken (JP)
- Hiroshl, Matsui, c/o Cent. Res. Lab. Kawasaki-shl, Kanagawa-ken (JP)
- Yasuhiko, Yoshihara,
 c/o Tech. & Eng. Lab.
 Kawasaki-shi, Kanagawa-ken (JP)
- Nakamatsu, Tsuyoshi, c/o Tech. & Eng. Lab. Kawasaki-shi, Kanagawa-ken (JP)
- (74) Representative: Strehl Schübel-Hopf Groening & Partner Maximilianstrasse 54 80538 München (DE)

(54) Sucrase gene derived from coryneform bacteria

(57) The present invention provides a DNA fragment derived from Coryneform bacteria and containing a gene coding for a protein having sucrase activity and a recombinant DNA containing said DNA fragment and capable of gene amplification in Coryneform bacteria. The recombinant DNA is introduced into Coryneform bacteria to enhance their sucrase activity. By using the bacteria having enhanced sucrase activity a method is provided for efficiently producing L-amino acids and nucleic acids in a short period of time.

EP 0 724 017 A3



EUROPEAN SEARCH REPORT

Application Number EP 96 10 1228

Category	Citation of document with it of relevant parts	ndication, where appropriate, ssages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IntCL6)
X	DATABASE WPI Section Ch, Week 9343 Derwent Publications Ltd., London, GB; Class D16, AN 93-338924 XP002034057 & JP 05 244 958 A (AJINOMOTO KK), 24 September 1993 * abstract * & US 5 556 776 A (AJINOMOTO CO INC) 17 September 1996 * the whole document *		1-7	C12N15/56 C12P13/08 C12P13/14 C12N1/19 //(C12N1/19, C12R1:13, C12R1:15)
D,X	JOURNAL OF BACTERIOLOGY, vol. 172, no. 12, 1 December 1990, pages 6727-6735, XP000571733 GUNASEKARAN P ET AL: "CLONING AND SEQUENCING OF THE SACA GENE: CHARACTERIZATION OF A SUCRASE FROM ZYMOMONAS MOBILIS" * figure 5 *		1	
Y	" Tigure 5 "		2-7	TECHNICAL FIELDS SEARCHED (Inc.Cl.6)
Y	APPL MICROBIOL BIOTECHNOL, 34 (3). 1990. 340-343., XP000571746 KAWAHARA Y ET AL: "EFFECT OF GLYCINE BETAINE ON THE SUCROSE CATABOLISM OF AN LLYSINE PRODUCING MUTANT OF BREVIBACTERIUM-LACTOFERMENTUM" * the whole document *		2-7	C12N C12P
Y		NEW YORK US, XP002034056 AL: "Cloning systems in oducing corynebacteria"		
	The present search report has h			
	Place of search	Date of completion of the search	F	Econom
THE HAGUE 30 June 1997			oen, J	
CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document document		cument, but pub ate n the application or other reasons	dished on, or	

Populariem na en en